U.S. House of Representatives Committee on Science
Environment, Technology, and Standards Subcommittee

Testimony on
H.R. 4546 and H.R. 4607
National Oceanic and Atmospheric Administration Organic Acts

Rayburn House Office Building Room 2318
2:00 p.m.
July 15, 2004

by

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Introduction

Mr. Chairman, thank you for the opportunity to testify at this important hearing. I am D. James Baker, President and Chief Executive Officer of the Academy of Natural Sciences in Philadelphia, and I served as the Adminstrator of the National Oceanic and Atmospheric Administration (NOAA) from May of 1993 to January of 2001, longer than any other Administrator. I also worked for NOAA as a scientist at the Pacific Marine Environmental Laboratory in Seattle in the 1970s. My experience as a scientist and administrator tells me that it is very important for NOAA to have an Organic Act, and I am pleased to testify in favor of the organic acts which are currently pending in Congress. The Congress has always strongly supported NOAA, and I hope that a resolution can be reached, because it will provide strength to the vital programs NOAA carries out.

From weather and climate to fisheries and coastal zone management, NOAA has had an important impact on the conduct of national affairs since it was formed in 1970. During my tenure, I was pleased to see Congress support these critical missions and grow the budget by more than 50 per cent. NOAA took the lead in civil satellite operations, in ocean exploration, and in coastal conservation. Yet at critical times in these and other national policy debates there were questions about NOAA=s mission especially where NOAA=s programs appeared to overlap that of other agencies. An organic act would help avoid these unnecessary debates. I will organize my testimony according to the questions that were asked in the invitation letter.

Before I go into the specific questions that I have been asked to address, I would like to put my answers into a historical context. When NOAA and EPA were formed by President Nixon in

1970, environmental issues were foremost in the public's mind. Much has been accomplished since then in providing clean air, clean water, better weather forecasts, and accurate and complete mapping of our coasts and Great Lakes. But in 1970, we were not aware of the extent to which we were exploiting fisheries; we were not able to forecast an El Nino or understand the role of humans in global climate change, and we were seeing just the beginning of the decline in protected marine mammals. Today, almost 25 years later, we have the best weather service in the world, our data bases for the environment are massive, and we have a much better understanding of forecasting El Nino and longer term climate change. But we are facing vulnerability to natural disasters, non-point source pollution, air shed deposition of nitrogen into coastal waters which leads to dead zones, and continuing and rapid declines in commercial fisheries. We will be doing more offshore drilling, and the biodiversity of the sea will be explored with new molecular techniques. We will continue to operate under the burden of not being a signatory to the Law of the Sea Convention. The U.S. Ocean Commission and the Pew Ocean Commission have each provided excellent documentation of these and other critical issues.

In short, the problems are different – harder to solve – and the agency needs to change with the times. It needs more recognition and support, more money, and more independence. In fact, I believe, and I want to make this point up front, that the environmental problems that the nation faces today are such that NOAA should be an independent agency like EPA. The proposed organic acts can help in making that transition. It may not happen in this session or administration, or even in the next, but I believe it is an essential step for our country to deal with these critical issues. NOAA was originally proposed as an independent agency, and today it has the maturity to become one. I know that a bill was introduced yesterday in the Senate to make NOAA an independent agency, and I hope that the House will carefully consider supporting that bill.

1. What is the biggest problem at NOAA and can that problem be addressed in statute?

I would divide the NOAA issues into two parts: weather and climate forecasts on the one hand and resource management on the other. I mentioned that we have the best weather observation and forecast system in the world, thanks to the dedicated work of the employees of the National Weather Service and the National Environmental Satellite and Data and Information Service. But are we as ready as we should be for a major natural disaster? Our lack of preparedness for terrorism events suggests that our systems for preparing for major natural disasters need a careful examination. NOAA plays an important role in getting information out to the appropriate users; NOAA Weather Radio is a good example. Perhaps we won't see the sequence of events recently portrayed in the film *The Day After Tomorrow*, but weather experts know that storms, floods, and high winds can be devastating, especially as population growth puts more people and property in harm's way. NOAA must be part of homeland security planning for natural disasters.

On the resource management side, we are seeing today, as documented by both of the Ocean Commissions, a rapid decline of commercial fisheries. We have not yet solved the problem of keeping alive a viable commercial fishing industry with sustainable stocks of fish. The answer lies in reduced numbers for quotas, and in full ecosystem management. We must set an example, and work internationally to find ways to reduce the stress on fisheries stocks. We are already

seeing stocks reduce in size substantially; that is, individual fish are getting smaller and smaller. We should not be the generation to preside over the loss of commercial fisheries. We have been working a long time on this problem: President Grant established the first U.S. Fish Commission in 1872 because of the decline in fisheries. We have to find a new way. We are continually told that this new century is the century of biology – can these new ideas, ranging from species identification by DNA sequencing to cloning endangered species, help us in fisheries management?

2. What missions and functions should NOAA be responsible for and how should NOAA be organized? What is the most important thing to accomplish in an organic act for NOAA?

In particular it is important to emphasize the key role of the oceans in NOAA. NOAA is responsible for long-term forecasts of weather and climate, which in turn require better measurements of the ocean. We must have an ocean observing system that provides coverage and information as good as the information we get from the atmosphere, but we are a long way from that coverage today. The current emphasis on observations of all kinds in NOAA is gratifying to see, but the funding must be found to make it work. As the Chair of the international science steering committee for the Global Ocean Observing System sponsored by the Intergovernmental Oceanographic Commission, the World Meteorological Organization, and the International Council of Scientific Unions, I can say that NOAA=s leadership in global observations is critical to success for understanding, predicting, and using ocean data for a variety of purposes. Let me say also that as we look to the future, it will be essential to have other ocean observations B namely the satellites that measure the shape of the ocean, altimeter satellites such as the multinational JASON-2 program, tropical moored buoys such as the TOGA-TAO array and coastal moorings, sea level gauges, surface drifting buoys, and measurements from ships of opportunity.

Organizationally, it is important to maintain the scientific independence of NOAA. There have been attempts in the past by administrations of both parties to limit the flow of information from NOAA, particularly on politically sensitive issues like global climate change and fisheries management. The organic act should be carefully read to make sure that NOAA can maintain its independence when such issues arise.

3. What are the pros and cons of the proposed restructuring in Chairman Ehlers' bill, H.R. 4546 and would it improve NOAA's support of ecosystem-based management?

I like the groupings that have been proposed in Chairman Ehlers' bill, and I think that such a focus would help the agency function better. When I was Administrator of NOAA, we developed a strategic plan that was very similar to this grouping, and we ran regular quarterly meetings to assess progress in this organizational framework. I also believe that it is critical to follow the advice of the Ocean Commissions about ecosystem-based management. In particular, NOAA's role as protector of endangered marine mammals depends on a much better understanding of the full ecosystems of which these mammals are part. I can remember many discussions at NOAA while I was administrator where we debated the cause of decline of, for example, the Steller sea lions, without having the benefit of understanding the complex web of interactions that lead to such decline.

4. How can Title 1 of H.R. 4546 be improved?

Title 1 of H.R. 4546 gives a good summary of the agency and what it does. I think it could be improved by adding a provision for formalizing the mechanism for research to be carried out and funded at universities and research institutions outside NOAA. Although NOAA has funded external research to some extent over the years through Sea Grant, the Office of Global Programs, and others, much more could be done. I'm impressed with how the Navy and other parts of DOD have benefited greatly with organizations like the Office of Naval Research. Such formal arrangements for, say, an Office of NOAA Research, could be a good thing.

5. Could a Deputy Assistant Secretary for Science and Technology improve coordination of science and research at NOAA?

I like the idea of a DAS for Science and Technology for coordination of science and research at NOAA, and would propose that such a DAS might be the focal point for the office alluded to above, an Office of NOAA Research for external funding.

I'm also pleased to see the continuance of the Science Advisory Board. This Board was established on my watch at NOAA, and with the able and excellent leadership of Dr. Alfred Beeton it was able to provide very good guidance for a variety of programs. I am glad to see that it will continue.

Conclusion

Finally, let me say a word about education. NOAA has not been able to do as much as it could in educating the public, and I have always been impressed with what NASA has done. NOAA needs more support for educational and outreach programs. I was pleased to see that NOAA will sponsor a major new exhibit on the oceans at the Smithsonian, and I hope that more such exhibits and outreach can be supported. It was my experience at NOAA that the more the public was educated about our issues, the better the support we would have in dealing with difficult issues.

After I left my job as Administrator of NOAA, I wanted to join an institution that had both research and public outreach, and I was lucky enough to become President of the Academy of Natural Sciences in Philadelphia, the oldest continuously operating natural history institution in the western hemisphere. At the Academy we are developing new programs to show the public the tradeoffs involved in making environmental decisions. We have started a new Town Square program where citizens, policy makers, representatives of business, and scientists can discuss issues like watershed restoration and dam removal to understand all the aspects. NOAA might consider helping establish other such programs around the country, with experts from NOAA talking along with others. In any case, more support and emphasis on education would be very helpful for decision making.

Thank you for the opportunity to be here today. I appreciate the opportunity to testify, and look forward to a stronger and more independent National Oceanic and Atmospheric Administration.